To: Way, Steven[way.steven@epa.gov]; Myers, Craig[Myers.Craig@epa.gov]

From: Matt Francis

Sent: Sat 9/12/2015 6:16:27 PM

Subject: Fwd: GK Mine Discharge- Temporary Treatment - Lime Addition / Floc Optimer 83949 Floc

Testing

image001.png image001.png 83949 SDS.PDF

OPTIMER 83949 Mineral Processing Flocculant.pdf

Vince said you asked about this again this morning.

Sent via the Samsung Galaxy Note® 3, an AT&T 4G LTE smartphone

----- Original message -----

From: Matt Francis <m.francis@erllc.com> Date: 09/10/2015 3:16 PM (GMT-07:00)

To: "Way, Steven" <way.steven@epa.gov>, myers.craig@epa.gov

Subject: Fwd: GK Mine Discharge- Temporary Treatment - Lime Addition / Floc Optimer 83949 Floc

Testing

You brought up the floc this morning, so here is a "refresh" of status for you to ponder and provide input.

Sent via the Samsung Galaxy Note® 3, an AT&T 4G LTE smartphone

----- Original message -----

From: Matt Francis <m.francis@erllc.com>
Date: 09/08/2015 12:36 PM (GMT-07:00)
To: "Way, Steven" <way.steven@epa.gov>

Cc: "Powell, Greg" <Powell.Greg@epa.gov>, "Dhieux, Joyel" <Dhieux.Joyel@epa.gov>, "Guy, Kerry"

<Guy.Kerry@epa.gov>, "Myers, Craig" <Myers.Craig@epa.gov>, "Petri, Elliott"

<Elliott.Petri@WestonSolutions.com>

Subject: RE: GK Mine Discharge- Temporary Treatment - Lime Addition / Floc Optimer 83949 Floc

Testing

I received a quote earlier today on the Nalco Optimer 83949. The quote was direct from Nalco who say the product is only available in dry form. Are we sure it purchased in liquid form in the past, or is it possible it was purchased as powder and mixed? If we're sure it was liquid I will probe them some more.

## CBI/Ex. 4

The Nalco accounting folks should have a new account set up for me by first thing tomorrow morning and I can order anytime after that. They say a rush order is 8 days.

Please advise for further action.

Thanks

From: Way, Steven [mailto:way.steven@epa.gov] Sent: Tuesday, September 08, 2015 12:27 PM To: Matt Francis <m.francis@erllc.com>

Cc: Powell, Greg < Powell. Greg@epa.gov>; Dhieux, Joyel < Dhieux. Joyel@epa.gov>; Guy, Kerry

<Guy.Kerry@epa.gov>; Myers, Craig <Myers.Craig@epa.gov>; Petri, Elliott

<Elliott.Petri@WestonSolutions.com>

Subject: FW: GK Mine Discharge- Temporary Treatment - Lime Addition / Floc Optimer 83949 Floc Testing

Matt,

FYI – the Copper Env team assisting with our current system performance and potential future lime addition based system at Glandstone has provided the following information. If we determine it is necessary to use Flocculent, then our current testing results are indicated below. The main point being

### CBI/Ex. 4

This does not require an immediate action, other than, the need to identify a supplier of the liquid form in tote size or equivalent was discussed before the long weekend.

Steve

Steven Way
Federal On-Scene Coordinator
Emergency Response Unit
US EPA - Region 8
1595 Wynkoop Street
Denver, CO 80202

Office: 303-312-6723

From: Jim Jonas [mailto:jim.jonas@copperenv.com] Sent: Tuesday, September 08, 2015 11:21 AM

To: Myers, Craig; 'Dave McCarthy' Cc: Way, Steven; 'Petri, Elliott' Subject: RE: Optimer 83949 Floc

#### Hi Craig,

Yes, the NALCO Optimer 83949 was the floc we tested and we found it worked better with higher pHs (>6). At other lime treatment systems, we typically dose 1-5 ppm depending on pH, solids loading, and clarifier capacity. We've got about a dozen different flocculants we plan to test with treated water (pH 4.5 and up) from the Site to identify the best flocculant for low pH. We should have the testing completed in the next week or two (at most).

Let me know if you have additional questions.

Thanks,

Jim Jonas

Copper Environmental Consulting 406 East Park Avenue, Suite 2 Anaconda, MT 59711 Phone (406) 563-2700 ext. 313 Fax (406) 563-2701 Mobile (406) 560-6446

email: jim.jonas@copperenv.com<mailto:jim.jonas@copperenv.com>

www.copperenv.com<a href="http://www.copperenv.com/">www.copperenv.com</a>

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From: Myers, Craig [mailto:Myers.Craig@epa.gov] Sent: Tuesday, September 8, 2015 10:26 AM

To: Jim Jonas; 'Dave McCarthy' Cc: Way, Steven; 'Petri, Elliott' Subject: FW: Optimer 83849 Floc

Jim/Dave.

Is this the floc you all tested? If it is, what application rate should we expect to use? Thanks.

Steve.

I assume we're thinking this for when we move the treatment from the R&B to Gladstone?

From: Matt Francis [mailto:m.francis@erllc.com] Sent: Tuesday, September 08, 2015 10:21 AM

To: Myers, Craig; Dhieux, Joyel Subject: Optimer 83849 Floc

Below is a quote for the floc you wanted, and attached is some information on it. For some reason I thought this was to be a liquid floc, but it comes in bags. Seems expensive. Let me know if you would like me top proceed with the order,a nd how much. Thanks

From: Kaemmerling, Calvin [mailto:Calvin.Kaemmerling@nalco.com]

Sent: Tuesday, September 08, 2015 10:11 AM

To: Matt Francis <m.francis@erllc.com<mailto:m.francis@erllc.com>>

Subject: RE: Introduction

Hi Matt,

This is a dry flocculant so I have the price per 55 pound bag and per pallet (40 bags). These prices include shipping, but do not include tax. I have attached the GHS SDS and the product data sheet. Please let me know how much you would like to order and the PO number. I will get everything going as quickly as possible. I can also help you with activation and makedown procedures. Please let me know if you have any questions about this or anything else.

# CBI/Ex. 4

Thank you,

Calvin Kaemmerling District Representative

NALCO An Ecolab Company
M 303-868-0466
E Calvin.Kaemmerling@nalco.com<mailto:Calvin.Kaemmerling@nalco.com>

From: Kaemmerling, Calvin

Sent: Tuesday, September 08, 2015 9:47 AM

To: 'm.francis@erllc.com' Subject: Introduction

#### Hi Mr. Francis,

I received the following information and would like to talk to you about how I may be able to meet your needs. I am local in Colorado and specialize in coagulants and flocculants. Please call or email me with any additional information you have and I will do what I can to meet your needs.

Caller Name : Matt Francis Caller Telephone : 303 994-6611

Caller Email Address: m.francis@erllc.com<mailto:m.francis@erllc.com>

Company Name: Environmental Restoration Caller's Address: 4870 Newport Street

Commerce City CO. 80022

Shipping Address: 1218 Greene Street Silverton CO. 81433 Product: Optimer 8349

What does Company Do: Help customers clean the environment

User of Product : Flocculant Resale : Company's Use

Export : No Additional Details :

Thank you,

Calvin Kaemmerling District Representative

NALCO An Ecolab Company M 303-868-0466

E Calvin.Kaemmerling@nalco.com<mailto:Calvin.Kaemmerling@nalco.com>

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